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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,896	08/02/2000	Timothy J. Mousley	PHB 34 , 390	7981

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EXAMINER

GREY, CHRISTOPHER P

ART UNIT	PAPER NUMBER
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2416

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/630,896	Applicant(s) MOULSLEY ET AL.	
	Examiner CHRISTOPHER P. GREY	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 18-20, 23-25, 28-30 and 33-41 is/are pending in the application.
- 4a) Of the above claim(s) 20, 23-25, 28, 29 and 37-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 18, 19, 30, 33-36 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 15, 18, 19, 30, 33, 34, 35, 36 and 41 in the reply filed on 3/3/09 is acknowledged. The traversal is on the ground(s) that the applicant believes that there is no burden placed on the examining corps to continue to examine all of the claims of the application as one group. This is not found persuasive because as indicated by the restriction requirement of the previous office action, each group (groups I-III), requires a separate classification within the art and is mutually exclusive to the other, which places a burden on the examiner in examining such claims. Group I, being the combination, teaches a radio communication system, and shows a primary station and a plurality of secondary stations in communication. Groups II and III, being the subcombinations, showing the details of the primary station (such as the determination of the availability and highest data rate) and plurality of secondary stations (creation of an access request) respectively. The combination fails to show the details of groups II and III. Furthermore, groups II and III are related as subcombinations useable together.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 20,23-25,28,29 and 37-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/3/09

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15, 18, 19, 35, 30, 33, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho (WO 00/13426) in view of Korpela et al. (US 6167283), hereinafter referred to as Kor.

Regarding claim 15, Cho discloses a primary station (**page 5, line 13, base station is equivalent to primary station**) operable to transmit a random access channel status message (**page 5 line 13 teaches a broadcast channel frame being generated**) on each random access channel of a plurality of random access channels (**page 6 lines 1-2, where the broadcast channel frame that contains channel status info is broadcast to all mobile stations on such an access channel**);

a plurality of secondary stations (**page 5 line 15, mobile station**) operable to receive the random access channel status message (**page 5 lines 15-16 where the mobile receives the broadcast channel frame**), wherein each secondary station (**page 5 line 15, mobile station**) is further operable to determine which random access channel to request (**page 5 lines 15-17, where the mobile selects which channel code based on availability, and then transmits a channel assignment request**)

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based on the random access channel status message (**page 5 lines 15-17, where the request is generated based on the reception of the broadcast channel message at the mobile**);

Cho does not specifically disclose including an indicated highest available data rate.

Kor discloses including an indicated highest available data rate (**Col 6 lines 24-26, "the maximum available bit rate v indicated by a control message sent by the base station"**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the process of allocating a transmission rate of Cho, as taught by Kor, since stated in Col 3 lines 20-25 that such a modification will be able to direct terminals to use a suitable cell if there are available cells that have different capacities.

Regarding claim 18,

Cho discloses wherein the random access channel status message (**page 5 line 13 teaches a broadcast channel frame being generated**) is transmitted by said primary station (**page 5, line 13, base station is equivalent to primary station**) as a part of a paging indicator channel (**the frame data of BCCH includes the PID of the mobile, which implies that the mobile station is pages from the network, the mobile station attempts a channel access and when the mobile requests the channel assignment for paging, the mobile station NR and AR fields indicating a reqd assigned band and an additional assigned band respectively are both set to 0 because the mobile does not know a band for**

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processing traffic, thus indicating that the BCCH is transmitted as a part of paging and a band acquisition traffic as disclosed on page 11, lines 3-21).

Regarding claim 19,

Cho discloses wherein the random access channel status message **(page 5 line 13 teaches a broadcast channel frame being generated)** is transmitted by said primary station **(page 5, line 13, base station is equivalent to primary station)** as a part of an acquisition indication channel **(the frame data of BCCH includes the PID of the mobile, which implies that the mobile station is pages from the network, the mobile station attempts a channel access and when the mobile requests the channel assignment for paging, the mobile station NR and AR fields indicating a reqd assigned band and an additional assigned band respectively are both set to 0 because the mobile does not know a band for processing traffic, thus indicating that the BCCH is transmitted as a part of paging and a band acquisition traffic as disclosed on page 11, lines 3-21).**

Regarding claim 30,

Cho discloses transmitting from a primary, station **(page 5, line 13, base station is equivalent to primary station)**, a random access channel status message **(page 5 line 13 teaches a broadcast channel frame being generated)** that includes information of each of a plurality of random access channels **(page 5 lines 13-15, where the status info is data specifying occupied or not for each code/channel);**

receiving at a secondary station (**page 5 line 15, mobile station**), the random access channel status message (**page 5 line 13 teaches a broadcast channel frame being generated**);

selecting (**page 5 line 15, “the mobile station selects”**) at the secondary station (**page 5 line 15, mobile station**), a selected random access channel (**page 5 lines 15-18, where the channel code is selected and a channel request is sent on a RACH**) based on the received random access channel status message (**page 5 lines 15-17, where the request is generated based on the reception of the broadcast channel message at the mobile**);

requesting (**page 5 lines 15-17, where the mobile selects which channel code based on availability, and then transmits a channel assignment request**) by the secondary station (**page 5 line 15, mobile station**), a selected (**page 3 lines 15-17, where the code is selected and RACH is thus requested**) random access channel (**page 5, the channel code, or channel is equivalent to the resource**) from the primary station (**page 5, line 13, base station is equivalent to primary station**).

Cho does not specifically disclose the information including an indicated highest available data rate.

Kor discloses the information (**Col 6 lines 24-26, where control information is equivalent to the status information taught by Cho**) including an indicated highest available data rate (**Col 6 lines 24-26, “the maximum available bit rate v indicated by a control message sent by the base station”**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the process of allocating a transmission rate of Cho, as taught by Kor, since stated in Col 3 lines 20-25 that such a modification will be able to direct terminals to use a suitable cell if there are available cells that have different capacities.

Regarding claim 33, Cho discloses wherein the random access channel status message **(page 5 line 13 teaches a broadcast channel frame being generated)** is transmitted by said primary station **(page 5, line 13, base station is equivalent to primary station)** as a part of a paging indicator channel **(the frame data of BCCH includes the PID of the mobile, which implies that the mobile station is pages from the network, the mobile station attempts a channel access and when the mobile requests the channel assignment for paging, the mobile station NR and AR fields indicating a reqd assigned band and an additional assigned band respectively are both set to 0 because the mobile does not know a band for processing traffic, thus indicating that the BCCH is transmitted as a part of paging and a band acquisition traffic as disclosed on page 11, lines 3-21).**

Regarding claim 34, Cho discloses wherein the random access channel status message **(page 5 line 13 teaches a broadcast channel frame being generated)** is transmitted by said primary station **(page 5, line 13, base station is equivalent to primary station)** as a part of an acquisition indication channel **(the frame data of BCCH includes the PID of the mobile, which implies that the mobile station is pages from the network, the mobile station attempts a channel access**

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and when the mobile requests the channel assignment for paging, the mobile station NR and AR fields indicating a reqd assigned band and an additional assigned band respectively are both set to 0 because the mobile does not know a band for processing traffic, thus indicating that the BCCH is transmitted as a part of paging and a band acquisition traffic as disclosed on page 11, lines 3-21).

Regarding claim 35. Cho does not specifically disclose wherein the indicated highest available data rate serves to identify whether the corresponding random access channel is available, and identifies a highest available data rate for available channels of the plurality of random access channels.

Kor discloses wherein the indicated highest available data rate **(Col 6 lines 24-26, “the maximum available bit rate v indicated by a control message sent by the base station”)** serves to identify whether the corresponding random access channel is available **(Col 6 lines 24-26, where the word “available shows that this indication shows availability)**, and identifies a highest available data rate for available channels **(the channels b/w BS and terminals)** of the plurality of random access channels **(plurality of channels exist b/w base station and plurality of terminals).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the process of allocating a transmission rate of Cho, as taught by Kor, since stated in Col 3 lines 20-25 that such a modification will be able to direct terminals to use a suitable cell if there are available cells that have different capacities.

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5. Claims 36 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho (WO 00/13426) in view of Korpela et al. (US 6167283) in view of Persson et al. (US 6028851), hereinafter referred to as Persson.

Regarding claim 36, The combined teachings of Cho and Kor do not specifically disclose wherein the indicated highest available data rate of at least one available random access channel is lower than a highest data rate that could be made available to the at least one random access channel, based on a potential future demand for capacity.

Persson discloses wherein the indicated highest available data rate of at least one available random access channel is lower than a highest data rate that could be made available to the at least one random access channel, based on a potential future demand for capacity **(Col 5 lines 60-65, where the maximum data rate is determined from the capacity, therefore future max data rate can be higher than the current one depending on a capacity).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Cho and Kor, as taught by Persson, since stated in Col 6 lines 10-15, that such a modification would eliminate the injection of needless interference into the system by mobiles seeking access to the system when the base station does not presently have capacity to allow the access.

Regarding claim 41, The combined teachings of Cho and Kor do not specifically disclose wherein the indicated highest available data rate of at least one available random access channel is lower than a highest data rate that could be made

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available to the at least one random access channel, based on a potential future demand for capacity.

Persson discloses wherein the indicated highest available data rate of at least one available random access channel is lower than a highest data rate that could be made available to the at least one random access channel, based on a potential future demand for capacity **(Col 5 lines 60-65, where the maximum data rate is determined from the capacity, therefore future max data rate can be higher than the current one depending on a capacity).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Cho and Kor, as taught by Persson, since stated in Col 6 lines 10-15, that such a modification would eliminate the injection of needless interference into the system by mobiles seeking access to the system when the base station does not presently have capacity to allow the access.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Choi (US 6963540) teaches a base station transmitting use status information of physical channels and maximum available data rate information on a status indicator channel. Park (US 6728233) discloses a rate indicator transmitter for generating a rate indicator having information about the determined bit rate and transmitting the generated rate indicator to the mobile station.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER P. GREY whose telephone number is (571)272-3160. The examiner can normally be reached on 10AM-7:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moe Aung can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2416

/Christopher P Grey/
Examiner, Art Unit 2416